

## Troubleshooting Guide

Before going through the check list below, first refer back to the connection and operating procedures. Should any problem persist after you have made these checks, consult your nearest Sony dealer.

### Function buttons and tape transport problems

		Function
Function buttons do not activate.	Cassette holder is not fully closed. The REMOTE PAUSE indicator is lit.	Close the holder completely. Press II on the remote commander to release the pause mode.
The II button on the remote commander does not activate. (The REMOTE PAUSE indicator does not light up.)	The system control cord (3-pin) is not connected.	Connect the cord firmly.
● button does not activate.	No cassette in the holder. Tab has been removed from the cassette.	Insert a cassette. Cover the hole with plastic tape.
Automatic shut-off mechanism activates before the tape comes to its end.	Tape is slack. Cassette shell is deformed.	Take up the tape slack. Use another cassette.
Excessively loud tape transport noise when rewinding or fast-forwarding.	This depends on the cassette used and is not a problem.	

### Recording and playback problems

		Function
Recording or playback cannot be made or there is a decrease in sound level.	Record/playback and erase heads are either dirty or magnetized.	Clean or demagnetize the heads.
	Improper connection.	Make connections properly.
	Improper setting of the amplifier controls.	Set the amplifier controls to the appropriate positions.
Excessive wow, flutter or dropout.	Head, capstan or pinch roller is dirty.	Clean in accordance with instructions shown in "Maintenance".
Incomplete erasure.	Erase head is dirty.	Clean the erase head.
Increased noise or poor reproduction in high frequencies.	Head is magnetized.	Demagnetize the head.
Unbalanced tone in high frequencies.	Improper setting of the DOLBY NR switch.	When playing back, set the switch to the same position used in recording.
	Improper setting of the TAPE SELECTOR(s).	If recorded with the wrong selector setting, adjust the tone controls of the amplifier in playback.

### Noise

		Function
Hum noise.	The deck is stacked on or under the amplifier.	Separate the units.
Noise is recorded.	Recording was made near such equipment as a television set or a color monitor, and the interference has affected the recording on the tape and the Dolby NR system.	Move the unit away from television set or color monitor.

## SONY Stereo Cassette Deck

# TC-W390

### Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

### Owner's Record

The model and serial numbers are located at the rear. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. TC-W390      Serial No. \_\_\_\_\_

### Precautions

#### On safety

- Operate the unit only on 120 V AC, 60 Hz.
- Should any solid object or liquid fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it is not to be used for an extended period of time. To disconnect the cord, pull it out by grasping the plug. Never pull the cord itself.

#### On installation

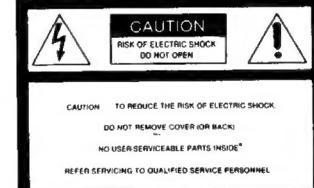
- Place the unit on a level surface.
- Do not install the unit near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- Good ventilation is essential to prevent internal heat build-up in the unit. Place the unit in a location with adequate air circulation. Do not place the unit on a soft surface.

#### On repacking

Do not throw away the carton and packing materials. It makes an ideal container in which to transport the unit.

If you have any questions or problems concerning your unit that is not covered in this manual, please consult your nearest Sony dealer.

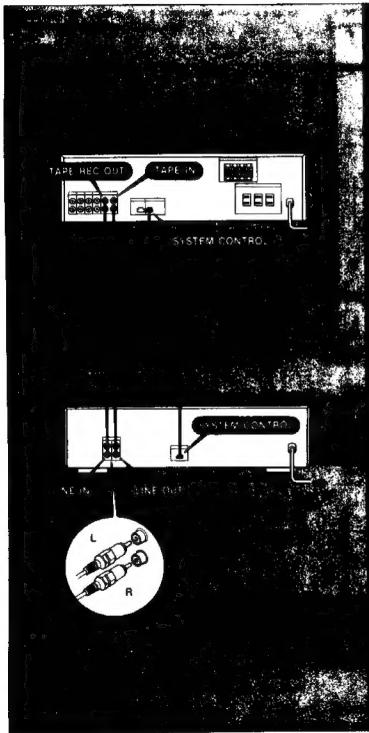
For detailed precautions, see the leaflet "IMPORTANT SAFEGUARDS".



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

## Connections



### Notes on connections

- Connect the AC power cord last. Make sure power is off.
- Cord plugs and jacks are color coded. Red plugs and jacks are for right channel (R) and white ones for left channel (L).
- The cable connectors should be fully inserted into the jacks. A loose connection may cause hum and noise.

### System control connection

Connect to the SYSTEM CONTROL connector of the Sony TA-AX390/TA-AX391 amplifier with the 3-pin flat system control cord for remote control.



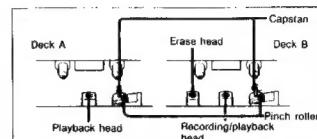
**Be sure to insert the cord firmly.**



**To disconnect the cord, pull out the connector.**  
Do not pull the cord itself.



## Maintenance



### Cleaning heads and tape path

Clean after every 10 hours of operation and before recording for optimum record/playback quality.

- 1 Press ■▲.
- 2 Slightly moisten the tip of a cotton swab with cleaning fluid or alcohol.
- 3 Wipe heads, pinch rollers and capstans.

### Demagnetizing the heads

After 20 to 30 hours of use, it is necessary to remove residual magnetism built up on the head.  
Turn off the power and demagnetize heads with any commercially available demagnetizer.

### Cleaning the cabinet

Clean the cabinet, panel and controls with a soft cloth slightly moistened with a mild detergent solution.

### Important

Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzene.

## Specifications

### Recording system

4-track 2-channel stereo  
Fast-forward and rewind time  
Approx. 120 sec. (with C-60 cassette)  
Bias  
AC bias  
Signal-to-noise ratio (NAB, at peak level)

	Dolby NR switch	OFF	B-TYPE ON
Cassette			
TYPE IV (Sony METAL-ES)	58 dB	65 dB	
TYPE II (Sony UX-S)	56 dB	63 dB	
TYPE I (Sony HF-S)	54 dB	61 dB	

Total harmonic distortion  
1.0 % (with Sony METAL-ES cassette)

### Frequency response (DOLBY NR OFF)

TYPE IV cassette (Sony METAL-ES)	30 - 15,000 Hz (±3 dB)
	30 - 13,000 Hz (DVU recording)
TYPE II cassette (Sony UX-S)	30 - 14,000 Hz (±3 dB)
TYPE I cassette (Sony HF-S)	30 - 13,000 Hz (±3 dB)

Wow and flutter 0.12% WWRMS (NAB)

### Input

Connector	Type	Sensitivity	Impedance
LINE IN	phono	77.6 mV (20 dB)	50 kilohms

### Output

Connector	Type	Rated output level	Load impedance
LINE OUT	phono	0.44 V (-5 dB) at load impedance 47 kilohms	over 10 kilohms

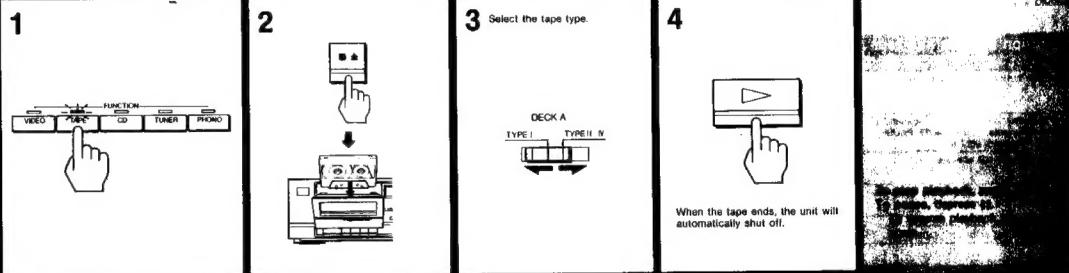
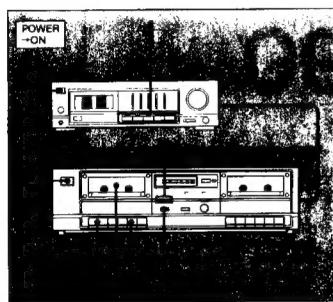
### General

Power requirements 120 V AC, 60 Hz  
Power consumption 15 W  
Dimensions Approx. 430 x 118 x 250 mm (w/h/d)  
(17 x 4 1/2 x 9 1/2 inches)  
including projecting parts and controls  
Weight Approx. 3.4 kg (7 lbs 8 oz)  
Supplied accessories Connecting cord (2)  
System control cord (3-pin) (1)

Design and specifications subject to change without notice.



### Playing Back Tapes (on either Deck A or B)



**Before turning the power off!**  
Be sure to release **▶** or **■** by pressing **■■**. Otherwise, the tape may become entangled when the power is turned on again.

**After winding the tape using **◀◀** or **▶▶**.**  
Be sure to press **■■** to shut the unit off.

**When both Decks A and B are in the playback mode.**  
Only playback from Deck A will be audible.

**You cannot use the **II** buttons on Deck B and on the remote commander at the same time.**  
If you press **II** on the remote commander to set Deck B in the pause mode (the REMOTE PAUSE indicator lights up), use the commander to release it.

**If you depress **II** on Deck B (the REMOTE PAUSE indicator does not light up), press **II** on Deck B to release it.**

**When listening to cassettes recorded with Dolby noise reduction\***  
Set the DOLBY NR switch to ON.

**What is the Dolby NR system?**  
Dolby NR (noise reduction) system reduces tape hiss noise in low-level high frequency signals. The system boosts these signals in recording and lowers them in playback.

\*Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.  
"DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

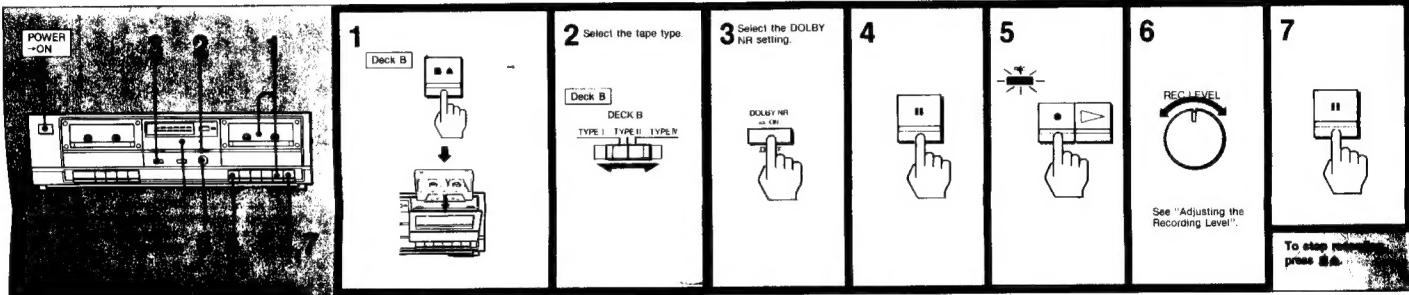
**To select tape type**  
Select the tape type according to the classification of Sony cassette tapes. (See "Tape classification".)

Tape type	TAPE SELECT setting	
	Deck A	Deck B
TYPE I (NORMAL)	TYPE I	TYPE I
TYPE II (CrO <sub>2</sub> )	TYPE II/IV	TYPE II
TYPE IV (METAL)		TYPE IV

#### Tape classification

Tape type	Tapes (C30 - C90)
TYPE I (Normal)	SONY: EF, HF, HF-S, HF-ES Other TYPE I equivalent tapes (For 120µs EQ, NORMAL BIAS)
TYPE II (CrO <sub>2</sub> )	SONY: UX, UX-S, UX-ES, UX-PRO Other TYPE II equivalent tapes (For 70µs EQ, HIGH BIAS)
TYPE IV (Metal)	SONY: METAL-ES Other TYPE IV equivalent tapes (For 70µs EQ, METAL BIAS)

## Recording on Tape (Deck B)

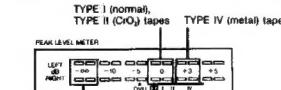


### Adjusting the Recording Level

Adjust the recording level according to the tape type by observing the PEAK LEVEL METERS.

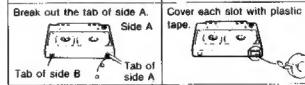
If the recording level setting is too high, the recording will be distorted. If it is too low, the tape will produce a hissing sound.

#### Recommended maximum peak level meter reading

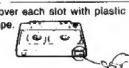


#### To prevent accidental erasure

##### To protect side A recording



##### To reuse a cassette



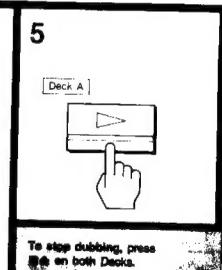
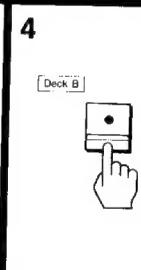
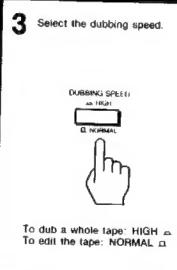
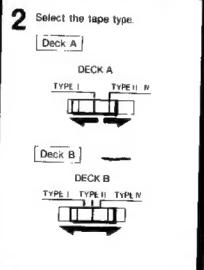
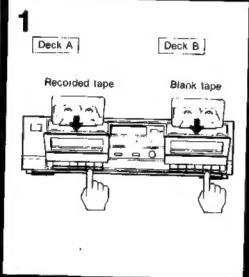
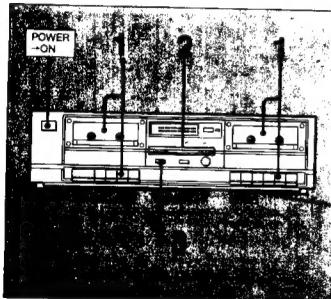
Cassettes longer than 90 minutes are not recommended except when necessary for long continuous recording and playback.

Cassettes longer than 90 minutes use extremely thin tape which tangles easily when the tape transport is stopped and started frequently.

#### Cassette care

- Do not touch the tape surface to protect cassettes from dust or dirt. They will accumulate on the unit's magnetic heads, lowering the playback and recording quality.
- Keep cassettes away from such equipment as speakers and amplifiers. Their magnetic coils may cause erasure or distortion of your recorded tapes.
- Do not expose cassettes to direct sunlight, extremely low or high temperature or moisture.

## Dubbing Tapes (from Deck A to B)



### Is it necessary to select DOLBY NR?

No. The cassette in Deck B is automatically recorded with the same recording system as the original cassette in Deck A.

### Notes on tape dubbing

- \* Do not change the setting of the DUBBING SPEED switch during tape dubbing.
- \* If the sound is affected by a television set during high-speed dubbing, turn off the set or move it away from the deck.

### How to edit the tape

- 1 During normal-speed dubbing, depress ■ on Deck B.
- 2 Locate the desired portion to be dubbed with ► or ◀ on Deck A and press ■. Or replace the cassette with a new one.
- 3 Press ► on Deck A and release ■ on Deck B to start dubbing again.